Committee on Resources

Testimony

Subcommittee on Water and Power
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Chairman, Salton Sea Authority

Mr. Chairman, Members of the Committee and Members of the Salton Sea Authority Task Force:

I'm Tellis Codekas, Chairman of the Salton Sea Authority, and today I'm speaking on behalf of the Salton Sea Authority. My testimony begins with a short history of the Salton Sea and the Salton Sea Authority and why we have taken the lead in trying to save the Sea. Then, I'll tell you why we believe the problems of the Salton Sea need to be addressed and why we think it's a national issue and thus the need for federal involvement. I'll close with an overview of the Authority's preferred alternative to solving some of the Sea's problems and the objectives we have targeted through implementation of the plan.

History

The Salton Sink, which is largely below sea level, was once the bottom of a prehistoric sea. The Gulf of California originally extended north into what is now the Imperial and Coachella valleys. Periodically the Colorado River overflowed its natural levees and filled the valley between mountain ranges to form a vast lake, which rose to about 30 feet above sea level.

The Sink was dry when construction of the Imperial Canal was completed in 1901. The Canal diverted irrigation water from the Colorado River just upstream of the Mexican Border. After about four years, silt deposits led to an attempt to relocate the diversion a short distance downstream from the border of Mexico. But unusual winter floods breached the diversion structure in 1905 and, for 18 months, the entire flow of the Colorado River poured through the Mexicali and Imperial valleys into the Salton Sink. The river break was finally closed in the spring of 1907 and the reestablished lake was named Salton Sea. So, the Sea is an accident created by both natural and man-made events. Since its creation, the Salton Sea has been sustained by flows consisting largely of agricultural drainage from the Imperial, Coachella and Mexicali valleys and from rainfall, storm runoff and groundwater inflow. Since the Sea exists in a closed basin, evaporation is its only outflow. Because of this fact, the high and increasing levels of salinity of the Sea's water is its greatest and best-known problem. Currently, the Sea is about 25 percent saltier than the ocean and approximately 11 thousand tons of salt are added every day. This chart illustrates the current trend.

Additionally, for the past several decades, concerns about elevation at the Salton Sea have been linked to increased agricultural runoff, above-average rainfall and increasing wastewater flows from Mexico. The rising water has damaged some agricultural, recreational and residential properties along the Sea's shores.

The Salton Sea Authority

Over the years groups of many kinds have organized seeking to solve the problems of the Salton Sea. They

were never short on ideas, but always short on funding.

In 1986, 20 interested agencies joined to form the Salton Sea Task Force with a goal of finding a workable plan to stabilize the elevation and salinity of the Salton Sea. The Task Force was organized under the California Resources Agency at the direction of the Governor of California. The Task Force studied solar pond technology, pump-out facilities and diked impoundments, among other options, along with possible funding sources. A preliminary report was released by the Task Force in 1988 showing pump-out/solar pond technology to control elevation and salinity might be feasible, although certainly costly. While the work of the Task Force did not result in the start of a project, it did, in 1993, lead to the formation of the Salton Sea Authority -- a joint powers agreement among the Counties of Imperial and Riverside, Imperial Irrigation District and the Coachella Valley Water District. The Authority was organized to work with the State of California, the federal government and the Republic of Mexico to develop programs to ensure continued beneficial uses of the Salton Sea. Over the last two years, the Authority has worked intensively with state and federal agencies to develop practical, affordable and effective solutions to reducing the primary problem facing the Sea of high salinity.

Why Save The Sea

The Authority faced two key questions: (1) what do we need to save the Sea from and, (2) what do we need to save the Sea for. We believe that the Sea needs to be saved from increasing salinity and fluctuating elevation and it needs to be saved for economic and environmental reasons. The Authority recognizes the unique and valuable nature of the Sea as a national and regional resource, and recognizes the need to address its economic and environmental problems. As an agricultural drainage reservoir, the Sea is critical to the agricultural economics of the Imperial, Coachella and Mexicali valleys. In addition, there are other extensive developments around the Sea, including geothermal, recreational and cultural, which need to be protected from the impacts of rising salinity and fluctuating elevation.

From an environmental perspective, the Sea provides important and diverse habitat for resident and migratory wildlife. The Salton Sea serves as a critical link in the Pacific Flyway for waterfowl, marsh and shore birds. We see the Flyway as being of great national interest and that by saving the Salton Sea we are in effect mitigating for the development that has taken place on the Coastal Plain of California, which is where the Flyway was previously located. It is our view that by reducing salinity, the environment in and around the Sea will be greatly improved and the problems of the Sea greatly reduced. This is a situation where, if we do not undertake a project very soon, the environmental resources of the Sea will be damaged in a significant and irreversible way. So, let's do first things first and reduce the level of salinity.

The fluctuating elevation has been a problem and remains a great concern. A stable and sustainable elevation at the sea is of particular local interest. The Imperial Irrigation District and Coachella Valley Water District have spent over $44 million to landowners along the seashore as flooding compensation.

Our Preferred Alternative

After extensive research and public input, last year the Salton Sea Authority adopted within-Sea diked impoundment as the preferred approach to cleaning up some areas to restore recreational uses. Although a specific project has not been identified, the designation of a diked impoundment as the recommended option allows the Authority to proceed with determining the best project alternative and eventually preparing the necessary environmental reports and other documents.

Managing salinity with diked impoundments is based on the concept of providing an artificial outlet for the Sea by creating an evaporation pond. Water would be admitted into the impoundment through an inlet structure in the dike and carry a heavy salt load, while the relatively fresh inflows to the Sea from the Alamo, New and Whitewater rivers and other sources would reduce the salinity of the Sea. Within the impoundment, water would evaporate leaving the salt behind. The capacity of an impoundment depends on size and average depth as well as other factors to be defined through the feasibility analysis, including possibly pumping the concentrate to an acceptable location.

This preferred alternative was selected after evaluating 55 plans based on their capability of (1) reducing the Sea's salinity to equal that of ocean water; (2) controlling Sea elevation at the minus 230- to 235-foot level; (3) holding operations and maintenance costs to no more than 10 million dollars per year and (4) using only proven technology.

On the basis of our analysis and considerable public input, I would urge Congress to join the Authority and the Bureau of Reclamation in supporting diking as the most reasonable and cost-effective solution to Salton Sea problems. Diking is a vital first step toward a permanent solution for the Salton Sea. By concentrating the salt in a brine pond the volume of material needed to be moved is reduced to a manageable level. Furthermore, the Salton Sea Authority would like to continue our effort to save the Sea as lead agency. The Authority, of course, will continue to work in a collaborative and coordinated way with local, state and federal agencies into and through the implementation phase. We feel such an approach is the most practical, affordable and effective road to success and we are in the process of hiring staff for the Authority to do the foregoing.

Mr. Chairman, the demand for Colorado River water in Southern California and throughout the lower basin is very high and I expect water conservation and transfers to start within the next few years. Given the current circumstances and the likely future, the Authority believes a partnership must be formed among the federal, state and local interests to address the problems. As shown in this chart, the Authority has a viable method for planning, building, operating and maintaining a diking system and we need your help to bring this plan to fruition.

The "fix" for the Salton Sea will be expensive and ongoing, but the Salton Sea Authority has limited resources, so we are asking for your help to save the Sea. If we do nothing, the Sea will continue as a drainage reservoir and the other economic and environmental values and uses will ultimately be lost. The Salton Sea never was and never will be a Lake Tahoe but it has been and can again be a great economic and environmental asset to our communities and nation. I ask you to join the Authority in moving forward now.

Finally, I would like to thank you for your interest in the Salton Sea and the support you have given us. We look forward to working with you.

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